Independent Risk Analysis for the Straits Pipelines

DRAFT SCOPE OF WORK

As stated in the Michigan Petroleum Pipeline Task Force Report (pp 46-47), an independent risk analysis is needed to determine the amount of financial responsibility mechanism required under the 1953 Easement and to inform decisions about the future of the Straits Pipelines. More specifically, an analysis by qualified experts of a "worst case" release from the existing Straits Pipelines should include the following:

- Estimating the types and quantities of oil that would be released into the water under a "worst-case" spill scenario, taking into account the possible failure of existing safety and spill control mechanisms. This would require analysis by experts, e.g. engineers, with knowledge of pipeline design and operation, the various types of failure (physical, operational, etc.) that could lead to leaks or spills, how long it could take to shut down the flow into the Straits Pipelines, and how much oil could be released into the water.

- Estimating/modeling how the released oil would move, horizontally and vertically, in the water, and onto the land under a worst-case spill conditions (e.g. ice cover, storms, high currents, etc.). This would require experts with knowledge of the behavior of spilled oil in water and scientists (e.g. like those at the U of M Water Institute or NOAA) who model the flows of water.

- Estimating how long it would take to implement response measures to contain and clean up the released oil, using the available resources and personnel and how much it would cost. This would require experts with knowledge of the capabilities, limits and costs of oil containment and clean up technologies.

- Analyzing the ecological impacts, both short term and long term, of a worst case spill, including, but not necessarily limited to injuries to fish, wildlife, habitat, etc. This would require experts with knowledge of fish, wildlife, and other ecological resources.

- Analyzing the effectiveness of and estimating the cost of measures that could be taken to restore or mitigate the natural resources affected by the worst case spill.

- Estimating the amount of natural resource damages that would result from the worst case spill (i.e. the economic value of natural resources destroyed or impaired, the loss of the public's ability to use those resources until final cleanup and restoration is complete, and any residual damages that are not cleaned up.) This would require experts with knowledge of natural resource economics and damage assessment.

- Estimating the full costs of monitoring, oversight and damage assessment that would be incurred by governmental agencies as a result of the worst case spill.

- Estimating all other economic damages, public and private, that would result from a worst case spill, including, but not limited to, damages to sport, subsistence and commercial fishery operations, tourism and recreation-related businesses, and damages to property values in the areas impacted by the spill. This would require experts with

knowledge in economics.

- Preparing a draft report of the analysis, considering and responding to comments on the draft report, and then preparing a final report.

Because one of the ultimate purposes of the risk analysis in Task Force Recommendation 2 is to ensure that Enbridge has in place sufficient insurance and other financial assurance mechanisms to cover its full liability under the 1953 Straits Pipeline Easement, the risk analysis should also include research into the amounts and forms of insurance and other financial assurance mechanisms that are commercially available to satisfy that requirement. This would require experts with knowledge of the markets for insurance and other financial assurance mechanisms, as well experts in accounting who could independently assess Enbridge's financial capacity to satisfy its responsibilities under the Easement.